Appendix F
Preferred Alternative Policies

Appendix F

F. PREFERRED ALTERNATIVE POLICIES

Appendix F

F.1 BOARD OF NATURAL RESOURCES RESOLUTION NO. 1110

This Resolution was approved and adopted by the Washington State Board of Natural Resources on March 2, 2004.

STATE OF WASHINGTON

DEPARTMENT OF NATURAL RESOURCES

BOARD OF NATURAL RESOURCES

RESOLUTION NO. 1110

A **RESOLUTION** authorizing the Department of Natural Resources to prepare the Final Environmental Impact Statement for Sustainable Forest Management of State Trust Lands in Western Washington.

BE IT RESOLVED BY THE BOARD OF NATURAL RESOURCES, DEPARTMENT OF NATURAL RESOURCES, STATE OF WASHINGTON, THAT THE FOLLOWING PRINCIPLES SHALL BE INCORPORATED INTO THE PREFERRED ALTERNATIVE:

SECTION 1. State law (formerly RCW 79.68, recodified at Laws of 2003, Ch. 334, sec. 555(3)) directs the DNR to apply "sustained yield" management to state trust forestlands. The law requires the DNR to periodically adjust acreages designated for inclusion in the sustained yield management program, and calculate a sustainable forestry harvest level.

SECTION 2. The "sustainable harvest level" means the volume of timber to be scheduled for sale from state-owned lands during a planning decade. This is part of DNR's strategic plan for sustainable forest management. It provides for sustainable harvesting on a continuing basis without major prolonged curtailment or cessation of harvest, as required by state law.

SECTION 3. A draft environmental impact statement (DEIS) was issued, November 2003. The DEIS identified six alternatives without identifying a preferred alternative. Scoping comments, multiple public meetings, extensive written comments on the DEIS, direct public comments to the Board of Natural Resources, special Board Sustainable Forestry Workshops, comments from the Sustainable Forestry Technical Committee,

outputs from the ***Options*** policy simulation model, and the DEIS itself, all have provided important information that has led to the development of the preferred alternative.

SECTION 4. The Preferred Alternative shall be analyzed in the Final Environmental Impact Statement (FEIS). The DNR shall publish the FEIS and present its findings to the Board of Natural Resources and the public during May 2004. The Preferred Alternative shall be based upon the following statements and the documents referenced in Section 6:

A. Inter-decadal sales variability shall be limited to +/- 25%, based on volume.

B. The model calculation will be based on value. Operational management will also use volume to make stand-level decisions to capture forest value growth while managing the total inventory.

C. Sustainable harvest calculation groups shall be twenty (17 Forest Board Counties, Capital Forest, Olympic Experimental Forest (OESF) and all federal grants and Forest Board Purchased as a single group).

D. Actively manage the land base consistent with our fiduciary and Habitat Conservation Plan responsibilities.

E. Maturity criteria that reflect forest health and value-based considerations will be used by the DNR to provide professional management of the forested trust assets.

F. Bio-diversity pathways will be used to simultaneously increase the production of trust revenue and complex forest habitat with a priority for habitat areas, and across the landscape as appropriate.

G. Old Growth Research Areas continue to be deferred. Over time, target 10-15% of each westside HCP planning units for the development of older forests as defined by structural characteristics provided that existing old growth (as defined by the HCP) and older stands will be a priority focus in developing HCP planning unit targets.

H. The "50/25" strategy is removed and cumulative effects will be addressed through other SEPA processes.

I. The HCP directions shall replace the current legacy & reserve tree requirements.

J. For northern spotted owls:

a. Nesting/roosting/foraging and Dispersal Management: implement the HCP strategy for 50% habitat targets.

b. Prior to 2007, protect circles identified in Owl Memo #1.

c. Prior to 2007, protect Stat 1-R circles outside of the OESF.

d. Prior to 2006, protect SW owl circles other than those above.

e. Prior to 2005, protect owl circles in the OESF.

K. Riparian management shall be consistent with the HCP requirements and agreement with the federal services.

L. The Department shall annually report to the Board of Natural Resources its assessment of the environmental and economic results of implementing the Preferred Alternative. The Department shall employ a structured monitoring and reporting program.

SECTION 5. The Department shall present an analysis to the Board of Natural Resources during the May 2004 meeting that identifies hiring, implementation timelines and cash flow necessary to transition to the Preferred Alternative management practices and associated harvest levels. The Department is directed to prepare a Preferred Alternative that shall meet an average annual harvest target of 636mmbf as soon as possible.

SECTION 6. The FEIS shall take guidance from the following documents in the preparation of the FEIS and its Preferred Alternative: Document One (Management Principles and Objectives, February 3, 2004 as amended by the Board February 17, 2004). Document Two (The description of the Preferred Alternative as presented and amended by the Board on February 17, 2004).

APPROVED AND ADOPTED by the Board of Natural Resources, Department of Natural Resources, State of Washington, this second day of March, 2004.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the Commissioner of Public Lands.

DOUG SUTHERLAND
Commissioner of Public Lands

Approved as to form,
March 2, 2004

Phil Ferester, AAG

Appendix F

F.2 SUSTAINABLE HARVEST CALCULATION MANAGEMENT PRINCIPLES AND OBJECTIVES

The following document is the Board of Natural Resources Resolution 1110, Document 1.

Washington State
Board of Natural Resources

Resolution 1110 – Document 1. **February 17, 2004**

Sustainable Harvest Calculation Management Principles and Objectives

These principles and objectives were first introduced in a memo to the Board of Natural Resources (Board) by Board member Terry Bergeson, Superintendent of Public Instruction, at the January 2004 Board meeting. The memo was discussed and amended January 8th, February 3rd, and February 17th.

The objectives below provide a broad level of direction by the Board of Natural Resources to the Department of Natural Resources in modeling the sustainable harvest calculation and subsequent implementation of the preferred alternative, focusing on:

- Our fiduciary responsibilities;
- A flexible framework for DNR staff to work within;
- Phasing in management strategies to maximize net revenue within reasonable expenditures;
- Utilizing innovative forestry techniques to maintain a diverse, healthy forest system and to protect sensitive areas and habitats, and;
- Requiring monitoring and, at a minimum, annual reporting by DNR to the Board of efforts and results in an outcome-based format so that the Board can respond in a timely manner to policy and implementation issues.

The Board must ensure all decisions meet our fiduciary responsibilities and legal obligations. From the court ruling in *Skamania:* "The state's fiduciary duty of undivided loyalty prevents it from using state trust lands to accomplish public purposes other than those which benefit the trust beneficiaries." Each decision needs to be weighed in terms of:

- Being prudent;
- Assuring intergenerational equity; and
- Maintaining asset productivity in perpetuity.

With these principles in mind, the following objectives reflect the discussion of the Board members for the Sustainable Harvest Calculation and DNR management to meet:

1. The first objective is to have financial performance measured by net present value, a valuable tool to help assure optimum returns to all generations.
2. The second objective is to align all department-created policies, procedures and tasks with Board approved policies to ensure flexibility, optimize the net present value, and achieve other asset management objectives in support of our fiduciary responsibilities.
3. A third objective is to direct the DNR to provide professional management of the assets through active stewardship of as much of the landscape as allowable by law (including the HCP), opening up the landscape to on-base activities.
4. A fourth objective is for the Sustainable Harvest Calculation to reflect a flexible framework within which DNR may, year to year and stand by stand, use professional judgment, best

available science and sound field forestry to achieve excellence in our public stewardship. Timber sales should be regulated through a combined value and volume approach. Decadal target volumes should be managed to effectively market timber so as to increase the value of each timber sale, allowing for intra-decadal variability.

5. A fifth objective is to phase in innovative and more intensive silviculture activities such as improvements to planting stock, site preparation, fertilization, and thinnings that are appropriate for local stand conditions as cash flow is available, e.g., from improved timber sales marketing and reductions in regulatory or administrative constraints, living within present expenditure limits (referring to the 25 percent management fee) in the near-term.
6. A sixth objective is to actively manage the land base in such a manner as to complement our fiduciary responsibilities and still achieve a mosaic that includes a diverse forest structure and provides for broader economic, conservation, aesthetic, recreational and other public benefits. To this end, such innovative activities might include different types of variable density harvests, contract harvesting in sensitive areas, intentionally managing for snags and woody debris, rotating harvest ages, and the development of biological pathways – all in appropriately designated areas.
7. A seventh objective is to employ a structured monitoring and reporting program, providing, at a minimum, annual reporting by DNR to the Board on efforts and results. The report shall include short- and long-term costs and benefits and foreseeable changes needed in statutes, Board approved policies, management fees, or departmental practices.
8. An eighth objective is to identify those trust lands that are inefficient or unsuitable for meeting the trust mandate or fiduciary responsibility but appear to provide ecosystem and/or public benefits. Partnering with communities and other interest groups, DNR should identify and prioritize parcels no longer suited for trust land management and look at creative ways to remove those lands from the trust inventory, such that the trusts are fully compensated. (One example that might receive priority for communities is old natural forests, areas of old growth that have never been harvested or managed for harvest (estimated at 2,000 to 2,500 acres in total).)

F.3 DECISION MATRIX USED BY THE BOARD OF NATURAL RESOURCES TO AID IN THE SELECTION OF A PREFERRED ALTERNATIVE

The attached matrix was developed at December 2, 2003, and January 8, and February 3, 2004, Board of Natural Resources meetings.

Matrix that illustrates the likely outcomes of various policy choices

Compared to current conditions and Alternative 1 future projections

	a	b	c	d	e	f	g	h	i	j
	Policy Issues	**Outcomes**								
		Alternative	Revenue		Income variability	Amount of Structurally Complex forest beyond that required by the HCP	Implementation		Long-term standing inventory increases under Alt. 1	Likely environmental risks and social benefits of land managed in the urban-rural interface	
			Near-term	Long-term			Costs	Timing		Environmental	Socio-economic
	Volume & Value										
1	Volume	1,2,3,4	same	same	neutral	neutral	same	same	neutral	same	same
2	Value	5,6	positive	positive	neutral	neutral	increase	delay	neutral	increase	increase
	Silviculture										
3	DNR current Silviculture	1, 2, 3	same	same	neutral	same	same	same	same	same	same
4	Minimum Silviculture	4	negative	same	neutral	increase	decrease	immediate	increase	decrease	decrease
5	Intensive Silviculture	5, 6	positive	positive	neutral	same	increase	delay	same	increase	increase
6	Bio Diversity	6	positive	positive	neutral	increase	increase	delay	same	decrease	increase
	Timber Harvest Flow										
7	Even-flow	1,4	same	same	same	neutral	neutral	neutral	neutral	same	same
8	Relative Non-declining	2	Slight "+"	same	same	neutral	neutral	neutral	neutral	same	same
9	Relatively Unconstrained	3	Big "+"	same	Big "+"	neutral	neutral	neutral	neutral	increase	increase
10	Modulating	5,6	Big "+"	same	Slight "+"	neutral	neutral	neutral	neutral	increase	increase
	Ownership Groups										
11	24	1,2,4	same	same	same	neutral	neutral	neutral	neutral	same	same
12	20	3,5,6	Slight "+"	same	Slight "+"	neutral	neutral	neutral	neutral	same	same
13	1	3	Big "+"	same	Big "+"	neutral	neutral	neutral	neutral	increase	increase
	Available "On-base" land										
14	Maintain procedures & deferrals	1	negative	negative	neutral	Slight "+"	decrease	immediate	increase	same	same
15	Change procedures & deferrals	3,4,5,6	Slight "-"	positive	neutral	neutral	decrease	immediate	neutral	increase	increase
16	Change procedures	2	positive	positive	neutral	neutral	increase	immediate	neutral	increase	increase
	Older Forests										
17	Basic Protection Only	1,2,3	neutral	neutral	neutral	neutral	neutral	neutral	neutral	neutral	neutral
18	Specific site Protection	4	neutral	neutral	neutral	neutral	neutral	neutral	neutral	neutral	neutral
19	Landscape Targets	5,6	neutral	neutral	neutral	neutral	neutral	neutral	neutral	neutral	neutral
	Riparian Management										
20	No management	1,4	neutral	neutral	neutral	neutral	neutral	neutral	increase	same	same
21	Moderate Management	2,3,5	Slight "+"	Slight "+"	neutral	neutral	neutral	delay	neutral	same	same
22	Intensive Management	6	positive	positive	neutral	increase	increase	delay	neutral	increase	increase

Legend

positive	Dark shading represents a positive or increase response in an outcome or an immediately ability to apply the change compared to the present
negative	Light shading represents a negative or reduced response in an outcome or a delayed in the application
neutral	White represents a neutral response in the outcome to the proposed change

F.4 POLICIES AND PROCEDURES PROPOSED FOR ADOPTION TO IMPLEMENT THE PREFERRED ALTERNATIVE

Attached is the Policy Manual developed by DNR regarding circumstances triggering the need for a recalculation of the sustainable harvest level.

POXX-XXX CIRCUMSTANCES TRIGGERING THE NEED FOR A RECALCULATION OF THE SUSTAINABLE HARVEST LEVEL

DISCUSSION

State law requires that the Department shall manage the state-owned lands under its jurisdiction, which are primarily valuable for the purpose of growing forest crops on a sustained yield basis. "To this end, the Department shall periodically adjust the acreages designated for inclusion in the sustained yield management program and calculate a sustainable harvest level." (RCW 79.10.320). State law also defines sustainable harvest level as, "Sustainable harvest level means the volume of timber scheduled for sale from state-owned lands during a planning decade as calculated by the department and approved by the board."(RCW 79.10.300(5)).

The legislature envisioned that the sustainable harvest level is likely to need adjustment from time to time, based on the quantity, quality, growth, and availability of the timber resource on state lands. At the time the statute was enacted, the suitable time period was thought to be one decade, with the average annual sustainable harvest level remaining constant during the decade.

Currently, the factors affecting a stable long-term sustainable harvest calculation remain dynamic. Regulatory requirements are in flux, and information about the resource base continues to improve. In addition, new more powerful and flexible computer models have emerged, making it feasible to adjust the harvest level as circumstance changes. At the same time, the fundamental trust obligations and statutory requirements continue to be the foundation of policy.

POLICY

The department, with board approval, will recalculate the statewide sustainable harvest level, for board adoption no less frequently than every ten years.

The department will adjust the calculation and recommend adoption by the board when the department determines changing circumstances suggest that an adjusted harvest level in the near term would be prudent. Such circumstances may include major changes in legal requirements, significant new policy direction from the board, new information about the resource base available for harvest, or changes in technology.

POXX-XXX CIRCUMSTANCES TRIGGERING THE NEED FOR A RECALCULATION OF THE SUSTAINABLE HARVEST LEVEL

SEE ALSO

RCW 79.10.300, Land Management Authorities and Policies – Definitions
RCW 77.10.320, Land Management Authorities and Policies – Sustainable Harvest Program

Cancels: PO14-004 Sustainable Even-Flow Timber Harvest, Dated: July 1992
PO14-005 Harvest Levels Based on Volume, Dated: July 1992
PO14-006 Western Washington Ownership Groups, Dated: July 1992

PO0X-XXX DEFINITION OF SUSTAINABILITY FOR THE SUSTAINABLE HARVEST CALCULATION

DISCUSSION

State law defines "sustained yield" as "management of the forest to provide harvesting on a continuing basis without major prolonged curtailment or cessation of harvest." (RCW 79.10.310). A common law duty of the state as trustee is to not favor either present or future trust beneficiaries over each other. Sustained yield management helps accomplish this duty.

Within that broad statutory direction, various interpretations of sustained yield management are possible. Differences in interpretation may relate to the size of areas subject to separate calculations of sustainable yield of timber, for example, either the state trust ownership as a whole or smaller areas; the degree of variability of timber harvest over time; and the aspect of forest management to be the primary focus of sustainability, such as area or volume of timber harvested or retained, or revenue earned.

In the past, the department has divided the forest land base into separate sustainable harvest units based on county boundaries, the department's administrative regions, and several separately treated areas. In addition, the department has set the variability of harvest over time based on a non-declining even-flow objective. The department has calculated sustainable yield based on timber volume. The Board of Natural Resources has expressed a desire for a more flexible system as the basis for the sustainable harvest calculation.

(Lands formerly know as Forest Board Transfer and Forest Board Purchase are now defined in RCW 79.02.010(10) as "State Forest Lands." For purposes of this policy, former Forest Board Transfer lands will be called "State Forest Trust Lands," and former Forest Board Purchase Lands will be called "State Forest Purchase Lands.")

POLICY

For Western Washington the department will calculate a separate long-term decadal sustainable harvest level, expressed as timber volume, for twenty distinct sustainable harvest units, as follows: Each of the seventeen county beneficiaries of

Cancels: PO14-004 Sustainable Even-Flow Timber Harvest, Dated: July 1992
PO14-005 Harvest Levels Based on Volume, Dated: July 1992
PO14-006 Western Washington Ownership Groups, Dated: July 1992

PO0X-XXX DEFINITION OF SUSTAINABILITY FOR THE SUSTAINABLE HARVEST CALCULATION

State Forest Trust lands separately, and all of the federally granted trusts and State Forest Purchase lands in Western Washington together, with the exception that the Olympic Experimental State Forest and the Capitol State Forest shall each have a separate calculation regardless of trust.

In order to ensure intergenerational equity among beneficiaries, within each sustainable harvest unit, the calculated decadal harvest volume level for any decade may vary up or down, no more than approximately 25% from the level of the preceding decade. In order to take advantage of shorter term operational or market opportunities, the harvest level for any year within a decade may also fluctuate up to 25% plus or minus from the decadal average, as long as the decadal average is met over the decade.

Subject to all applicable legal and policy direction, the department will analyze the financial characteristics of forest stands in order to optimize the economic value of forest stands and timber production over time, in planning and scheduling timber harvests, in making investments in forest growth, and in searching for the least-cost methods of achieving other forest management objectives.

SEE ALSO

RCW 79.02.010(10), Public Lands Management - Definitions
RCW.79.10.310, Land Management Authorities and Policies, Sustained Yield Plans - Defined

Cancels: PO14-011 Managing "On Base" Lands, Dated: July, 1992
PO14-030 Silviculture Activities, Dated: July, 1992

PO0X-XXX GENERAL SILVICULTURAL STRATEGY APPLIED TO THE TIMBER RESOURCE BASE AVAILABLE FOR SUSTAINABLE HARVEST IN WESTERN WASHINGTON

The department defines silviculture as the art and science of cultivating forests to achieve objectives. The department uses a flexible, site-by-site approach for evaluating and implementing silvicultural treatments, based on site specific, rotational or long term analysis incorporating return on investment, variable biological conditions, and physical limitations. Site-specific silvicultural prescriptions include intensive activities such as refined planting stock, site preparation, fertilization, and thinning, as budgets allow at the time prescribed activities come due. Innovative silvicultural treatments can also be used to create, develop, enhance, or maintain forest biodiversity and health. For example, the objective of the "biodiversity pathways" approach to silviculture, presented by Carey et al (1996) is for simultaneous increases in production of both habitat and income. This approach creates complex, multi-aged stand structure that sustains key forest stand elements to replicate vital ecological functions over stands and landscapes.

All silviculture strategies are applied within a context of specific stand-level or larger area objectives to achieve long-term sustainable flow of forest products, services and other relevant values. Stands whose progress toward objectives is below potential are generally chosen for management intervention. Stands selected for regeneration harvests include those that have a low possibility for a positive response to partial harvest regimes.

POLICY

The department will follow legal requirements in maintaining the greatest possible portion of the trust forest lands as on-base.

The department will provide professional management of forestland through active stewardship of on-base lands. The active management of the land base will be carried out as an integral part of the department's fiduciary responsibilities and to achieve on a landscape basis a combination of forest structures that provide for broader economic, conservation, aesthetic recreational and other public benefits. The department will use intensive and innovative silviculture to guide the desired progression of stand development to simultaneously produce trust revenue and create structural complexity

Cancels: PO14-011 Managing "On Base" Lands, Dated: July, 1992
PO14-030 Silviculture Activities, Dated: July, 1992

PO0X-XXX GENERAL SILVICULTURAL STRATEGY APPLIED TO THE TIMBER RESOURCE BASE AVAILABLE FOR SUSTAINABLE HARVEST IN WESTERN WASHINGTON

The department will target over time 10 to15 percent of each western Washington HCP Planning Unit for older forest conditions. The department will use retention of existing old growth stands (as defined in the HCP) as a priority in achieving these targets. Retained areas may include Old Growth Research Areas described in Policy PO14-014

SEE ALSO

PO14-014, Old Growth Research Area Deferrals
PO14-031, Harvest and Reforestation methods

Cancels: PR 14-001-010 Determining Harvest Levels And Completing The Five-Year Action And Development Plan for Westside Regions and TK 14-001-020 Developing The Draft Five-Year Action And Development Plan

PR-14-001-010 SUSTAINABLE HARVEST IMPLEMENTATION PLANNING

APPLICATION All State forested trust lands west of the Cascades managed under the direction of the Land Management Division, except for recreation sites, Natural Area Preserves, and Natural Resources Conservation Areas.

DISCUSSION

This planning procedure describes the process the Department will utilize to implement the Sustainable Harvest Calculation. The procedure will provide direction and guidance for implementing the Board of Natural Resources policies and Department procedures and standard practice memorandums related to the sustainable harvest calculation. The primary purpose of sustainable harvest implementation planning is to describe how field operations within a HCP planning unit and over a 10-year period are likely to meet the Department's strategic policy goals.

Action

Implementation plans will be developed for each of the HCP planning units in western Washington after the sustainable harvest is completed. These plans will be developed over a period of time; the preparation will be based on available resources and budget. The purpose of the plans is to develop strategies that will be used to implement the Sustainable Harvest Calculation consistent with policies approved by the Board of Natural Resources at the HCP planning unit level over a 10-year period. These plans are tactical, not operational, and thus will not incorporate harvest schedules. Operational harvest scheduling is a dynamic process and will be negotiated between the regions and divisions.

All implementation plans should describe the measurable outcomes that are expected in specified areas of the HCP planning units. The measurable outcomes can encompass aspects of the ecological, economic and social-cultural environment. Examples include desired stand structures, volume targets and visual management requirements. Many of the outcomes are already established as a result of strategic policy direction set by the Department in documents such as the HCP and the sustainable harvest calculation. Other outcomes might be specified by local knowledge. Each implementation plan should then specify the types of forest management strategies that will accomplish the measurable outcomes. For example, a strategy to meet target Nesting, Roosting and Foraging landscape thresholds might include an array of potential silviculture prescriptions based on stand condition and type.

Implementation plans will be amended to reflect policy changes made by the Board (such as an update to the sustainable harvest level or the Forest Resource Plan). Plans will be also be updated as needed due to a changing environment. All implementation plans, at a minimum will specify strategies describing how policy objectives and harvest levels will be met within each HCP planning unit over the next decade. The implementation planning proposals will be subject to environmental analysis and

public participation under the State Environmental Protection Act (SEPA) and shall be approved by the Department's Land Steward.

APPROVED BY: _____

Gretchen Nicholas, Manager
Land Management Division

Definitions

Expected Outcomes: These are measurable objectives that assist in describing the planning goals and for monitoring the plan's performance overtime. Examples include: forest conditions described in terms of stand structure; harvest products or revenue projections; miles of trials to be construction/maintained.

Desired future/forest conditions: Narrative descriptions of the expected outcomes and expectations but are not measurable or mandatory in nature. Provided more as communication bridge between lay and scientific or technical terms than as an objective. Examples could include: development of older forest conditions; aesthetically intact forest, formation of community relations through local monitoring programs with schools; etc.

Management Strategies: These are the methods or the "sequence of activities" that will be used to achieve the expected outcomes. These management strategies may universal applied to all areas within the HCP unit or specifically to a watershed or land classification. Examples include: silvicultural prescriptions used to meet target conditions, management activities to direct public through strategic trail building, sign and gate placement, or scheduling the sequence of harvest in a given area to manage visual impacts.

Operational schedules: in the department refers to planning exercises that develop specific activity schedules for a specific area over a short time frame. Examples include timber harvest schedules (the distribution spreadsheet, information held in Planning and Tracking database) for one or more years for a district or administrative unit level, resource assessment schedules at the watershed or landscape scale within a biennium, HCP monitoring activities.

Policy objectives: These are the Department's strategic policy goals as provided in the HCP, FRP, ASP, Board of Natural Resources approved sustainable harvest level and Executive Management direction outlined in Department procedures and standard practice memorandums. The policy objectives for the plan are scaled and adjusted for the specific HCP unit. Examples include: the Sustainable Harvest Unit target levels for the HCP unit; HCP riparian conservation objectives.

Strategic forest management planning: in the department refers to Board of Natural Resources, Executive Management planning processes that develop statewide or regional wide plans and direction for the management of State forested trust lands. Time frames are typically long-term, 10 years or multiple decades. Examples include the Forest Resource Plan, the Habitat Conservation Plan (HCP), the Asset Stewardship Plan (ASP), and sustainable harvest.

Tactical forest management planning: in the department refers to planning exercises that develop forest management strategies to meet and fulfill the department's strategic policy goals, objectives and direction over more specific smaller geographic scales and/or timeframes. Examples include 10-year Implementation plans at the HCP planning unit scale, Klickitat HCP amendment, landscape plans at the watershed scale (Loomis, OESF and Lake Whatcom), and region Road Management and Abandonment Plans (RMAPS).

Cancels: **PR 14-004-120 Management Activities Within Spotted Owl Nest Patches, Circles, Designated Nesting, Roosting, and Foraging and Dispersal Management Areas, August 2004**

PR14-004-120 **MANAGEMENT ACTIVITIES WITHIN SPOTTED OWL CIRCLES AND DESIGNATED NESTING, ROOSTING, FORAGING (NRF) AND DISPERSAL MANAGEMENT AREAS**

APPLICATION

All forested ecosystems in the west-side planning units covered by the Habitat Conservation Plan (HCP).

DISCUSSION

DNR's conservation objective for the northern spotted owl is to provide habitat that makes a significant contribution to demographic support, maintenance of species distribution, and facilitation of dispersal. The strategy is intended to provide nesting, roosting, and foraging (NRF) habitat and dispersal habitat in strategic areas in order to achieve the conservation objective. The strategy is also intended to create a landscape in which active forest management plays a role in the development and maintenance of the structural characteristics that constitute such habitat.

ACTION

1. Northern Spotted Owl Circles

Determine if the proposed activity is located within any known spotted owl circles that are listed in Owl Implementation Memorandum #1, dated January 1998:

a. Do not harvest within the following circles prior to January 2007:

Pacific Cascade Region	Rock Creek/Chehalis
Olympic Region	Lower Stequaleho, Willoughby Ridge, Kunamakst Creek, Kalaloch, Solecks River, Kloochman, Queets Campground, Owl Creek, Shale Creek, Upper Stequaleho, Upper Clearwater River, Minter Creek, Tacoma Creek East Fork

b. Harvest only within non-habitat areas within the following circles prior to January 2007.

Pacific Cascade Region	Blue Mountain
Olympic Region	Anderson Ridge, Lake Creek/Soleduck, Lower Bear Creek, Reade Hill, Whiskey Creek, Salt Creek

c. Do not harvest or construct roads between March 1st and August 31st within the best 70 acres of a site center if the circle is outside of designated NRF and Dispersal Management Areas, or within 0.7 miles of the site center if the circle is within a designated NRF or Dispersal Management Area.

d. The following WDFW Status 1R (reproductive) owl circles will be protected:

a. Inside the Olympic Experimental State Forest (OESF), Status 1R owl circles will be protected as follows until January 2005:

b. All other Status 1R owl circles will be protected as follows until January 2007:

1) Do not harvest areas considered Type A or B[1] habitat.
2) Conduct habitat enhancement activities in areas that are considered Type C[1] habitat.
3) Areas considered non-habitat are unrestricted.

Request permission, in writing, for variations to this direction from the Land Management Division Manager.

e. **Per Standard Practice Memorandum SPM03-07, *Management of Northern Spotted Owl Circles and The Identification of Northern Spotted Owl Habitat in Southwest Washington*, inside the following Southwest Washington owl circles prior to FY2006:**

Site #880	**Elochoman River**
Site #877	**Upper Mill Creek – Willapa**
Site #1042	**Seven Creek – Elk Creek**
Site #1008	**Shields Creek – Chehalis**

[1] Contact Division HCP Implementation staff for more information and descriptions of Type A, B, and C northern spotted owl habitat.

1) Pacific Cascade Region will defer harvests that will degrade what is termed the Best Available Habitat defined as:
   a) Stands meeting the HCP definition of dispersal habitat, and
   b) Containing at least 1 snag per acre, **and**
   c) Containing at least 2,300 cubic feet of down woody debris per acre.

2) Pacific Cascade Region will apply habitat enhancement activities in stands that are termed Possible Habitat defined as:
   a) Stands meeting the HCP definition of dispersal habitat, and
   b) Containing at least 1 snag per acre, **or**
   c) Containing at least 2,300 cubic feet of down woody debris per acre.

2. NRF and Dispersal Management Areas

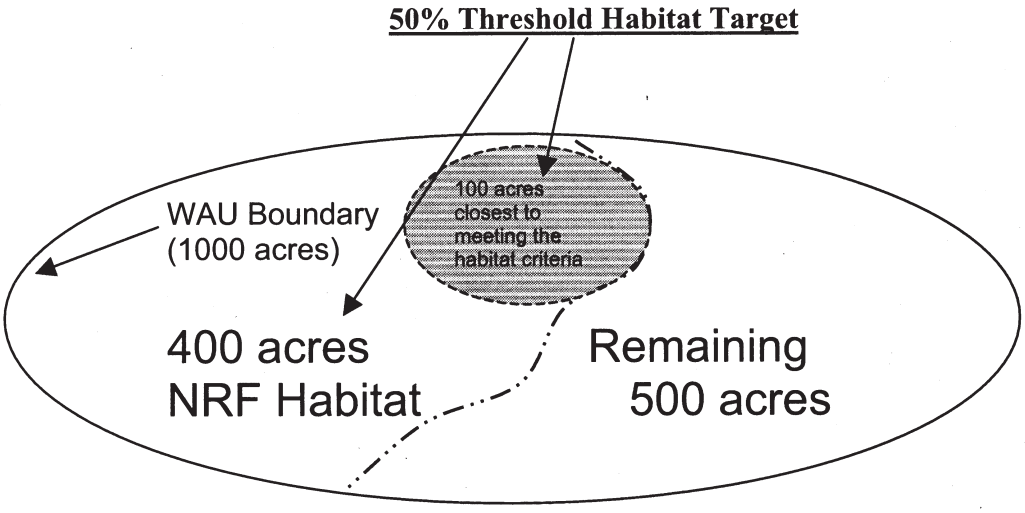
Westside DNR regions shall identify and classify forest stands within WAUs located in the NRF or Dispersal Management Areas.

For each WAU in the designated NRF or Dispersal Management Area, regions shall identify at least 50% of the DNR managed forestland area as the "threshold habitat target" within the WAU. This threshold habitat target will be prioritized by biological significance (i.e., presence and abundance of habitat components, adjacency to other habitat, adjacency to federal lands, etc.) and will be classified as follows, in priority:

1) Nest patch core and buffer areas in NRF Management Areas;
2) Forest stands that are considered Sub-mature/Dispersal or higher quality habitat. A portion of this habitat classification has been completed using the Forest Resource Inventory System (FRIS) HCP items database and maps and threshold percentages for each WAU are available to region staff. Field assessments and verification by Region or Division wildlife biologists will most likely be necessary to confirm the FRIS habitat designations. This field verification and documentation will be required as additional information and corrections for updating the FRIS HCP items NRF and Dispersal habitat delineations.
3) Forest stands that are non-habitat but are considered closest to meeting the specific habitat criteria. Further information and guidance on identifying stands considered closest to meeting specific habitat criteria will be provided to each region by staff from the HCP Implementation Section.

Identifying 50% of the DNR managed forestland area as the "threshold habitat target" within the WAU
(Simplified Example)

In this scenario, the WAU contains 1,000 acres. It will be necessary to identify the acres that are considered habitat using the FRIS HCP habitat database and to use field assessments conducted by a wildlife biologist (in this case 400 acres are considered NRF habitat). The next step is to identify areas closest to meeting the habitat criteria (in this case 100 acres is needed to be identified to reach the 50% threshold habitat target). Management activities can take place in the remaining 50% that do not count toward the threshold habitat target (in this case it is 500 acres).



Management activities can take place in areas considered suitable habitat as long as NRF habitat remains after the management activities are complete. Management activities may be conducted in the areas closest to meeting the habitat criteria only if the management activities do not increase the amount of time required for the target amount of NRF goal to be attained (50% threshold habitat target) if all the stands in that WAU were left unmanaged.

In the remaining 50% of the WAU that does not count toward the threshold habitat target, regions shall describe and specify the silviculture management prescriptions, strategies and other allowable forest management activities (e.g. road management, recreation, etc.) for stands within NRF and Dispersal Management Areas. This management strategy shall consider:

1) The northern spotted owl and other conservation strategies outlined in the HCP;
2) The Implementation Agreements between the DNR and the Federal Services or other state agencies;
3) The application of harvest methods using the biodiversity pathways approach; and
4) Other local agreements.

The Division that is responsible for the management and implementation of the HCP shall review and provide recommendations on the approval of the management strategies in NRF or Dispersal Management Areas.

The Region Manager shall also approve the management strategies inside NRF and Dispersal Management Areas.

3. Nest Patches

Determine if the proposed activity is located within a designated spotted owl nest patch. Do not conduct management activities within nest patches.

Do not trade or transfer land within a nest patch unless the nest patch buffer has been located in non-habitat and an area of equal or better habitat quality and potential is available for replacement within the appropriate area.

Approval Date: _____ Approved By: _____

Gretchen Nicholas
Land Management Division Manager

Cancels: **Replaces PR 14-005-020 (May 2000). Effective immediately.**

PR 14-005-020 **SELECTING STANDS FOR REGENERATION HARVEST**

APPLICATION All forest trust uplands subject to timber harvest

Discussion. The Trust Mandate is the fundamental reason why the Department manages trust lands. Under the Trust Mandate, the Department has a fiduciary requirement to generate revenue for the Trusts. In addition, the Department's Habitat Conservation Plan (HCP) requires the Department to manage for ecological habitat objectives, and the State Environmental Policy Act (SEPA) requires public interaction to discern additional objectives and assess environmental effects. This results in silvicultural prescriptions based on social, environmental/ecological, and economic landscape and FMU objectives that drive development of distinct management strategies. Regeneration harvests are an appropriate management strategy that is applied within the context of a stands progress towards FMU and landscape objectives.

Thus, the purpose of this procedure is to specify steps for selecting stands for regeneration harvest in order to best achieve the sustained harvest level. The sustainable harvest levels are based in part on the assumption that management strategies will assure optimum growth towards specified outcomes. It also assumes that the most financially efficient methods possible will be chosen to meet social, environmental and economic objectives. To that end, it is assumed that units that are progressing at the slowest rate towards FMU objectives will be chosen for management intervention. Units targeted for regeneration harvest will include those that have the lowest possibility for a positive response to partial harvest regimes. The Divisions will collaborate with the regions to develop methods to ensure correct implementation of this procedure.

Action. The following are the steps of major supporting actions for scheduling harvests:

Step 1—Information Inventory

- Review GIS or other information base to support landscape management for habitat and/or other pertinent landscape objectives
- Review GIS or other information base to generate transportation system information
- Review available FRIS, P&T, and/or site-specific stand information to support a determination of stand suitability for regeneration harvest of commercial cohort(s)
- Review relevant social, environmental/ecological, and economic issues applicable to the areas of consideration
- Conduct information-gathering site visits as necessary

Step 2—Mid-Term Harvest Schedule

- Use information in Step 1, above, to identify stands with commercial cohorts suitable for regeneration harvest within the next several—approximately five—years.
- Determine probable landscape and FMU objectives for these stands
- Reschedule, beyond the mid-term, stands that appear likely to fail to meet one or more landscape or FMU objectives—ecological and social objectives in particular
- Prioritize for first removal stands with urgent characteristics (such characteristics may be trust revenue and/or volume, stand development and growth rate trends, landscape forest structure and age class distribution, forest and ecological health, fire hazard, etc.)

Step 3—Execution

- Select a sufficient number of high priority stands to meet the yearly sustained harvest level
- Conduct remaining field work, SEPA analysis, timber sale appraisal, contract preparation, required review, contract award, and contract execution

APPROVED BY: _____

Gretchen Nicholas, Manager
Land Management Division

Cancels: **PR 14-006-090 (May 2000) for west-side, only; the May 2000 procedure remains in effect for east-side. Effective immediately.**

PR 14-006-090 **MANAGEMENT OF FOREST STAND COHORTS, WEST-SIDE**

APPLICATION All regeneration harvest FMUs on forested trust uplands, west-side

Discussion

Forest stand "cohorts" are forest stand components whose management imperatives make them statistically distinct. For example, *cohorts* such as live wildlife reserve trees, snags, and down dead logs, are statistically distinct because statutes, regulations, and the Department's HCP require their management and retention beyond a single rotation. These multi-rotational, or legacy, *cohorts* co-exist with one or more rotational, commercial *cohorts* within the same FMU. While legacy *cohorts* are managed to achieve environmental FMU objectives (such as wildlife and mycorrhizal habitats), one or more commercial *cohorts* within the same FMU are managed to achieve the economic FMU objective to generate revenue for the Trusts.

The purpose of this procedure is to provide unified direction for management of forest stand cohorts in a single document. To this end, the procedure specifies mandatory cohorts and their minimum requirements. The result is a structured silvicultural approach that reaches beyond uniformly applied classical even-aged—clearcut, seed tree, and shelterwood—and uneven-aged silvicultural systems. This approach, cohort management, synchronizes with site-specific silvicultural prescriptions that simultaneously manage distinct cohorts to achieve rotational social, environmental, and economic FMU objectives. The Department will provide periodic training to implement this procedure.

Action

Safety Regulations pre-empt all other requirements. Check current SPMs for up-dated additional guidance.

Cohort management shall integrate relevant social, environmental, and economic FMU objectives into site-specific, rotational silvicultural prescriptions that are optimal bio-diversity pathways for each particular situation. Cohorts may serve multiple FMU objectives. Silvicultural prescriptions provide the means to realize landscape objectives.

At least one commercial cohort shall be managed, generally on a rotational basis, for maximum benefit to trust beneficiaries, consistent with other FMU and landscape objectives.

Multi-rotational (legacy) cohorts shall be managed to levels directed in the table below.

All West-Side State Forest Uplands *

Legacy Cohort	Average /Acre	Dimensions	Proximity
Large, Structurally Unique Green Trees Suited for Wildlife *	≥ 2 trees	-- ≥ 1 tree, from largest diameter class -- ≥ 1 tree, from dominant crown class	At least 1 clump per 5 acres, or generally 400 feet or less from any point in the FMU to a green leave tree; leave trees should be toward FMU interior, except as needed for ecological objectives
Snag Recruits *	≥ 3 trees	-- Intermediate to dominant crown class -- ≥ 10 inches DBH, ≥ 30 feet in height, and ≥ 33 percent live crown ratio -- Select largest diameter trees first, preferably those with structural deformities and cavities	
Snags (standing dead trees suitable for wildlife)	≥ 3 snags (safety requirements shall be met)	-- ≥ 15 inches DBH, ≥ 30 feet tall, if available -- Select largest diameter cavity trees first -- If snags cannot be left safely, replace with suitable live trees	Leave snags as consistent with safety requirements
Down dead wood	≥ 2 logs	-- Small end diameter ≥ 12 inches, length ≥ 20 feet -- Select largest diameter logs first	None

*--Note: Table parameters represent average minimums. Acre-by-acre densities are variable—to include clumping—so long as proximity criteria are followed and FMU averages meet or exceed minimum requirements. FMU-specific objectives may dictate higher—but not lower—retention levels, particularly when managing for habitat objectives and combined effects of social, environmental, and economic landscape and FMU objectives.

--Any unstable and hazardous wildlife reserve tree or snag that could pose a threat to humans shall be felled and substituted by a suitable and safe snag or tree.

--Leave tree refugia may be created of sufficient size to safely accommodate hazardous wildlife trees or snags.

--Leave trees, snags, and clumps may be arranged to accommodate logging and vegetation management.

--Priority for retention will be given to tree species with propensity to develop cavities; legacy tree species in the stand after harvest should be generally representative of the legacy species diversity prior to harvest.

--Land Management division manager may approve alternate minimums provided that legal, regulatory, and HCP requirements remain inviolate.

APPROVED BY: _____

Gretchen Nicholas, Manager
Land Management Division

Cancels: **TK 14-001-010 Maintaining Mature Forest Components, Dated August 1999**

TK 14-001-010 **MAINTAINING MATURE FOREST COMPONENTS**

APPLICATION All even-aged forest lands that are managed under the direction of the Forest Resources Division, except for recreation sites, Natural Area Preserves, and Natural Resources Conservation Areas.

DISCUSSION

This task defines how the department will maintain forest cover diversity on DNR-managed lands as part of the Five-year Action and Development Plan planning process (see procedure PR 14-001-010 and task TK 14-001-020). The desired outcome of this task is to design timber sales that result in a wide range of habitat conditions at both a local and landscape level.

At the local level, the proximity of adjacent stands will be considered when planning management activities so that a desired amount of forest cover and structure can be maintained. A single regeneration harvest area may be made-up of several harvest units. However, the total size of a single harvest area may not exceed 100 acres without separation. The purpose of the separation is to provide diverse habitat conditions. Areas designated as riparian management zones (RMZs) or leave tree areas may not be included as part of the separation requirement. This local level strategy applies to all regeneration harvest activities on both the eastside and westside.

Exceptions will be considered when there are special needs (i.e., salvage cutting, forest health issues, land purchases and sales, or land exchange agreements).

The following definitions apply to this task:

Regeneration harvest activity – any harvest activity that results in a residual stand that has a stocking level that is less than 20 mature trees per acre (mature trees are 10 inches diameter at breast height (dbh) or greater). This includes, shelterwood and seed tree type silvicultural systems.

Regeneration harvest unit –a single area to be harvested that is designated by roads and/or boundary tags.

Regeneration harvest area – an area consisting of one or more regeneration harvest units. This area includes all units to be harvested as well as those that have been harvested and

are stocked with trees that are less than four feet tall. The Land Management Division has developed a program to identify these areas.

Action

1. Request Geographic Information System (GIS) data for location and ownership of forested land within the WAU with the proposed management activity.

2. Determine the size of the proposed regeneration harvest area.

    a. Total the number of acres of the regeneration harvest area by combining all unit acres that are not separated by at least one logical harvest unit (an area that must be at least 300-feet-wide and well stocked with trees that are at least four feet tall). Do not include RMZs, wetland buffers, or leave tree areas as part of the separation. If the total harvest area is:

        - less than 100 acres, include the sale in the Five-year Action and Development Plan. End this task and return to procedure PR 14-001-010.

        - greater than 100, not separated by a logical harvest unit, and the majority of timber is sold for salvage, forest health, land sale or purchase, or land exchange reasons obtain region manager approval before including the sale in the Five-year Action and Development Plan. End this task, and return to procedure PR 14-001-010.

            - If the sale is disapproved, reduce the size of the proposed harvest unit so that the combined acreage of all the units does not exceed 100 acres. End this task and return to procedure PR 14-001-010.

3. Construct roads as necessary to access management areas.

    Note: Forest Practices require that clear-cut units on islands be no larger than 40 acres. See WAC 222-30-110, Timber Harvesting on Islands.

APPROVED BY: _____

Gretchen Nicholas, Manager
Land Management Division

SEE ALSO:

PO14-016 LANDSCAPE PLANNING

PO14-019	WATERSHED ANALYSIS
PO14-020	RIPARIAN MANAGEMENT ZONES
PO14-021	WETLANDS
PO14-031	HARVEST AND REFORESTATION METHODS
PO14-032	GREEN-UP OF HARVEST UNITS
PR 14-001-010	DETERMINING HARVEST LEVELS AND COMPLETING THE FIVE-YEAR ACTION AND DEVELOPMENT PLAN
TK 14-001-020	DEVELOPING THE DRAFT FIVE-YEAR ACTON AND DEVELOPMENT PLAN
WAC 222-30-110	TIMBER HARVESTING ON ISLANDS.